

available) AND does not mean that each arriving ATM cell has a straight through non-buffered electricaly hardwired dedicated switched circuit path onto next node (cf our present invention which enables even the very first bits of the ATM cell to instantaneous already move along onto the next link's without the rest of the ATM cell even completed arriving at the node).

Whereas in our invention the transmission of data (which could be individual bits, or groups of bits) travels at PSTN switched circuit wire speed, whereas all the methods in Hiller et al inherently requires the ATM Cell arriving at input port of switch/router to be held up buffered and delayed (however small the delay) until a suitable period thereafter when a next 125us transmission time slot unit becomes available, before being transmitted onwards from the output port of the switch/ router over the time slot unit, ie the time assignment provides *only* consistent fixed intervals between the time between the beginning of onwards forwarding of the ATM Cell to the completion of forwarding onwards transmission o the ATM Cell of 125us (cf *immediate straight through as in our invention akin to to true PSTN circuit connection, & which could be of any durations 1us, 10ms, 1sec ...etc*)

In Hiller et all the switching/ routing of ATM Cell arriving to an input port to an output port at each node are based on specific routing information in the packet header & inherently introduces delay at the node due to the need to process routing information in the ATM Cell packet header, before the incoming ATM Cell thus held up at the input port can be switched to the output port; incoming ATM Cell data arriving at a node input port are processed based on the routing information in the packet header, buffered until the next available 125us time slot is available [cf our immediate straight through forwarding, routing of which is not based on any routing information in the IP packet header BUT that the various nodes at some pre-determined fixed universal time instant forwards any incoming bits signal onto pre-determined onwards links for a pre-determined period of time, WITHOUT needing examining any IP packet routing information in the header at all].

Also ATM once hardcoded/ built into infrastructure hardware to transmit an ATM cell at bandwidth of, eg mking possible one ATM Cell to be forwarded every 125us, could not be made to forward the same ATM cell every other various pre-determined intervals eg 1us, 10ms, 1 sec...etc.

In only a few words, our Invention provides true/ same as PSTN switched circuit bandwidth connection between any two Communication Devices anywhere in the world over the existing Internet. ATM & Hiller et al...etc do not come close to real PSTN switched circuit , being a balancing between packet switching and circuit switching

5. 35 U.S.C. 103(a) noted.

6. Were Claim 1 allowed, dependent Claim should be allowed

In view of the above, it is submitted that Claims 1 and 2 are in condition for allowance. Reconsideration of the rejections and objections is requested. Allowance of Claims 1 and 2, at an early stage is requested.

Attached hereto is a marked-up version of the changes made to the claims by the current amendment. The attached page is captioned "**Version with markings to show changes made**". The original filing fee covers the total number of claims remaining in the application.

Applicant respectfully requests that a timely Notice of Allowance be issued in this case.

Respectfully submitted,



Tang, Bob
17 Albert Road
London N4 3RR
United Kingdom
Email : laconsults@aol.com



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Claims

1. A method whereby an Internet Time Multiplexed Circuit Connection is established enabling data communications at both ends, all nodes between source & destination at predetermined periods the single individual periods of which may be of different time durations at each nodes due to the different transmission link bandwidths of each nodes are pre-arranged to automatically switch incoming signals to next node without buffering delay/route computation delay, thus establishes a Time Multiplexed Circuit Connection for the whole duration of all the predetermined periods, as in the case where a simplex PSTN dedicated circuit connection has been established.
2. A method as in method 1, where the caller & receiving side nodes/ITSP access the Worldwide Connections Manager for the Time Multiplexed Circuit Connections initialisations, monitoring & releases.



VERSION WITH MARKINGS TO SHOW CHANGS MADE

In the specification

A substitute specification containing all changed and unchanged paragraphs, together with a second marked-up specification showing all changes through the use of brackets and underlining are provided to now contain the proper headings. The substitute specification includes no new matter.

In the claims

Claim 1 has been amended as follows :

1. (Amended) A method whereby an Internet Time Multiplexed Circuit Connection is established enabling data communications at both ends, all nodes between source & destination at predetermined periods the single individual periods of which may be of different time durations at each nodes due to the different transmission link bandwidths of each nodes are pre-arranged to automatically switch incoming signals to next node without buffering delay/route computation delay, thus establishes a Time Multiplexed Circuit Connection for the whole duration of all the predetermined periods, as in the case where a simplex PSTN dedicated circuit connection has been established.

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